

IN THE CLAIMS

1. (Currently Amended) An apparatus comprising:
 - a base member;
 - a first plate having a plurality of v-shaped grooves to hold a set of optical fibers, the first plate being disposed on a surface of the base member; and
 - a second plate having a v-shaped groove to hold a secondary optical fiber, the second plate being disposed and movable with respect to the surface of the base member, the second plate being movable relative to the first plate, to enable an optical coupling of the secondary optical fiber to one of the optical fibers of the ~~first~~ set of optical fibers.
2. (Original) The apparatus defined in Claim 1 wherein the set of optical fibers comprise optical fibers from a line card.
3. (Withdrawn) The apparatus defined in Claim 1 further comprising:
 - an actuation device including shaped memory metal to move the second silicon plate in response to an electric signal.
4. (Original) The apparatus defined in Claim 1 further comprising:
 - a line card having a plurality of primary optical fibers;
 - wherein the set of optical fibers is connected to the line card, and each primary optical fiber corresponds to a fiber from the set of optical fibers.

5. (Original) The apparatus defined in Claim 4, further comprising:
a control module to detect an inoperative optical fiber, and to cause the secondary optical fiber to couple with the corresponding optical fiber from the set of optical fibers.
6. (Original) The apparatus defined in Claim 5, wherein the control module periodically moves the second plate relative to the first plate to test whether the first and second plates operate together to provide an optical switch.
7. (Original) The apparatus defined in Claim 1 wherein the first and second plates comprise at least one material selected from a group comprising silicon, quartz, sapphire, borosilicate glass, zirconia, metal, a metallic alloy, a metallic compound, and plastic.
8. (Withdrawn) The apparatus defined in Claim 1 further comprising:
a cradle coupled to the second plate;
a yoke coupled to the cradle; and
a platform coupled to the first plate.
9. (Withdrawn) The apparatus defined in Claim 8 further comprising a spring coupled between the yoke and the cradle to apply a force onto the cradle to maintain position of the first and second plates relative to each other.
10. (Original) The apparatus defined in Claim 1 wherein the first and second plates further comprise bearing grooves to hold bearing rods.

11. (Original) The apparatus defined in Claim 1 wherein the first and second plates further comprise alignment grooves to hold alignment rods.

12. (Currently Amended) An apparatus comprising:

a base member;

a first plate having a plurality of v-shaped grooves to hold a set of optical fibers, the first plate being disposed on a surface of the base member; and

a second plate having a v-shaped groove to hold a secondary optical fiber, the second plate being disposed and movable with respect to the surface of the base member, wherein the first and second plates further comprise bearing grooves to hold bearing rods;

the second plate being movable relative to the first plate, to enable coupling of the secondary optical fiber to one of the optical fibers of the ~~first~~ set of optical fibers;

a line card having a plurality of primary optical fibers; and

wherein the set of optical fibers is connected to the line card, and each primary optical fiber corresponds to a fiber from the set of optical fibers.

13. (Withdrawn) The apparatus defined in Claim 12 further comprising:

an actuation device including shaped memory metal to move the second silicon plate in response to an electric signal.

14. (Cancelled)

15. (Currently Amended) The apparatus defined in Claim ~~14~~ 12, further comprising:

a control module to detect an inoperative optical fiber, and to cause the secondary optical fiber to couple with the corresponding optical fiber from the set of optical fibers.

16. (Original) The apparatus defined in Claim 15, wherein the control module periodically moves the second plate relative to the first plate to test whether the first and second plates operate together to provide an optical switch.

17. (Original) The apparatus defined in Claim 12 wherein the first and second plates comprise at least one material selected from a group comprising silicon, quartz, sapphire, borosilicate glass, zirconia, metal, a metallic alloy, a metallic compound, and plastic.

18. (Withdrawn) The apparatus defined in Claim 12 further comprising:

a cradle coupled to the second plate;

a yoke coupled to the cradle; and

a platform coupled to the first plate.

19. (Withdrawn) The apparatus defined in Claim 18 further comprising a spring coupled between the yoke and the cradle to apply a force onto the cradle to maintain position of the first and second plates relative to each other.

20. (Withdrawn) The apparatus defined in Claim 12 wherein the first and second plates further comprise alignment grooves to hold alignment rods.

21. (Withdrawn) An apparatus comprising:

a first plate having a plurality of v-shaped grooves to hold a set of optical fibers; and

a second plate having a v-shaped groove to hold a secondary optical fiber;
the second plate being movable relative to the first plate, to enable coupling of the
secondary optical fiber to one of the optical fibers of the first set of optical fibers;
a cradle coupled to the second plate;
a yoke coupled to the cradle;
a platform coupled to the first plate; and
a spring coupled between the yoke and the cradle to apply a force onto the cradle to
maintain position of the first and second plates relative to each other.

22. (Currently Amended) ~~The apparatus of claim 1~~

An apparatus comprising:

a base member;

a first plate having a plurality of v-shaped grooves to hold a set of optical fibers, the first
plate being disposed on a surface of the base member; and

a second plate having a v-shaped groove to hold a secondary optical fiber, the second
plate being disposed and movable with respect to the surface of the base member,
the second plate being movable relative to the first plate, to enable an optical
coupling of the secondary optical fiber to one of the optical fibers of the set of
optical fibers,

wherein the surface of the base member includes a groove to hold a positioning rod to
position the first plate and the second plate.

23. (Previously Presented) The apparatus of claim 22, wherein the second plate includes a
groove to move and position the second plate relative to the base member and the first plate
using the positioning rod.

24. (Previously Presented) The apparatus of claim 22, wherein the first plate includes a groove to move and position the first plate relative to the base member and the second plate using the positioning rod.

25. (Previously Presented) The apparatus of claim 22, wherein the surface of the base member further comprises a support groove to hold a support rod to allow the first and the second plates to move on the support rod.

26. (Currently Amended) ~~The apparatus of claim 12~~

An apparatus comprising:

a base member;

a first plate having a plurality of v-shaped grooves to hold a set of optical fibers, the first plate being disposed on a surface of the base member; and

a second plate having a v-shaped groove to hold a secondary optical fiber, the second plate being disposed and movable with respect to the surface of the base member, wherein the first and second plates further comprise bearing grooves to hold bearing rods;

the second plate being movable relative to the first plate, to enable coupling of the secondary optical fiber to one of the optical fibers of the set of optical fibers;

a line card having a plurality of primary optical fibers; and

wherein the set of optical fibers is connected to the line card, and each primary optical fiber corresponds to a fiber from the set of optical fibers, wherein the surface of the base member includes a groove to hold a positioning rod to position the first plate and the second plate.

27. (Previously Presented) The apparatus of claim 26, wherein the second plate includes a groove to move and position the second plate relative to the base member and the first plate using the positioning rod.

28. (Previously Presented) The apparatus of claim 26, wherein the first plate includes a groove to move and position the first plate relative to the base member and the second plate using the positioning rod.

29. (Previously Presented) The apparatus of claim 26, wherein the surface of the base member further comprises a support groove to hold a support rod to allow the first and the second plates to move on the support rod.